



Project Overview and Goals

Why is Seattle Public Utilities (SPU) bringing this project to my neighborhood?

Water that falls on the roofs, streets, and parking lots in your neighborhood runs into the north branch of Thornton Creek, which flows into Lake Washington. It's estimated that more than 12 million pounds of pollution are carried into our water bodies through stormwater runoff each year. The pollutants can harm fish, wildlife, and our ecosystems. SPU is working on a project to improve creek water quality, reduce flooding, and bring other community benefits to your neighborhood.

What are the project's goals?

This project is part of the Natural Drainage Systems Partnering Program in the [Plan to Protect Seattle's Waterways](#), an initiative that aims to:

- Build natural drainage systems to reduce the amount of pollution in Thornton Creek and Lake Washington and help manage stormwater in your neighborhood.
- Deliver other community benefits, which include reduction of street flooding, traffic calming, new trees, and added green space.

If you need this information translated, please call 206-733-9934.

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A completed natural drainage system on a residential street.

Project Selection

How was my neighborhood selected?

SPU is currently working on NDS projects in several urban watersheds throughout Seattle, including the [Thornton](#), [Longfellow](#), and [Pipers Creek](#) watersheds. The [North Thornton Natural Drainage System](#) project is focused on reducing pollution in the north branch of Thornton Creek. The project area reflects the boundary of the north Thornton Creek watershed (see [project map](#) on page 5).

How does SPU decide which blocks to choose?

SPU picks project locations where there is an opportunity to work with other city departments or the community to address concerns or provide multiple benefits (for example, planned street or pedestrian improvements or addressing flooding problems). We also look at the locations that meet technical feasibility criteria.

The final project location depends on a lot of factors:

- How much stormwater can be managed at a particular location
- Location of nearby adverse conditions (steep slopes, high groundwater, or contaminated sites)
- Potential impacts to existing trees
- Existing soil conditions
- Location and condition of existing utilities
- Community input
- Width of existing public right-of-way
- Presence of driveways
- Existing parking congestion and availability of off-street parking
- Project construction, operation, and maintenance costs

I don't have flooding issues at my home or in my neighborhood. Why is this project necessary?

Even if you do not experience flooding on your block, NDS projects can help minimize flooding for others in your neighborhood and reduce water pollution in our entire region. This project will help to reduce polluted runoff from entering the creeks in your neighborhood that flow into Lake Washington and to ensure that you, your neighbors, and our entire region benefit from clean water for decades to come. The project is seeking opportunities to partner with other city departments to design the project to possibly make improvements to neighborhood streets and provide multiple community benefits, such as traffic calming, new sidewalks or other pedestrian improvements, or new trees and landscaping.

Timeline

What is the timeline for this project?

Currently, this project is in the early planning stages. In 2021, the project will move into design. We anticipate construction to begin in 2022 and last through 2023.

When will I know if my block was selected to receive an NDS project?

During the planning and design process, we will study potential locations (see [map](#) on page 5) based on technical feasibility and collect community input before making a final determination on NDS locations. We will provide more details about location selection, which is currently scheduled for early 2021.

Community Input

How much input does SPU want from residents?

Community involvement is important to us. We will consult with you during the planning, design, and construction phases. During the planning phase, we want to know about specific concerns and interests from you and your neighbors. We will collect information from you using tools such as surveys, online and in-person events, and meetings with neighborhood stakeholders. We will keep you informed using tools such as email, mailers, and the [project website](#).

How will SPU use community feedback?

We will incorporate community input into the final decisions as much as possible. Once potential locations are assessed, SPU will decide on project locations and work with residents on those blocks during the design and construction phases to ensure that natural drainage systems do not have adverse impacts on the adjacent residents or the community.

Project Impact and Maintenance

What will natural drainage systems look like after they are built?

Natural drainage systems are built in the roadway shoulder (the space between the street edge and property line) in residential neighborhoods. The projects use a combination of different soil types and plants to create a “filter” that captures and breaks down pollutants washing off roadways and parking areas.

Because each NDS project is built with growing plants, the way that they look will change over time. They usually take three to five years to fully develop. The grasses, shrubs, and trees installed during construction will grow and change as the garden matures. In the first few years, the stormwater collected in the natural drainage system will be more visible. The plants will also look different during different seasons of the year.



Natural drainage systems slow down stormwater flow and filter out pollutants before the water enters our creeks and Lake Washington.

Will I see water in the natural drainage systems?

During storms, each drainage system will temporarily hold up to 12 inches of water and then drain no more than 24 hours after the rain ends. When there are back-to-back storms or a larger storm, the water level will rise and fall, which is a sign that the drainage system is functioning properly.

What if it rains so much that the drainage system overflows?

The natural drainage systems are designed to completely drain within 24 hours of the storm passing. If there is more water than the system can hold at one time, you will see any excess stormwater flow out of the system and into the nearest pipe, ditch, or storm drain.

What happens if the site does not drain within 24 hours?

Seattle Public Utilities' Operation Response Center maintains a 24/7 hotline for people to call and report drainage issues. If the system near your home isn't draining properly or requires maintenance, please call: (206) 386-1800.

How will this work affect existing plants and trees?

Whenever possible, the project team will minimize impact on mature trees. In cases where trees are affected, we will replace each tree removed with 2 new ones. Some smaller or unhealthy trees may need to be transplanted or replaced. During construction, protecting trees is a priority.

Who is responsible for maintenance of the system?

SPU is responsible for all maintenance needs of the systems, including watering, weeding, and general upkeep. SPU will also prune trees and shrubs as needed. You will not be asked to pay for or perform any maintenance. In fact, it is important for residents to stay out of the NDS to maintain the function of systems. Plants will mature over time and the mix of plants will likely change, but this won't affect the system's function.

Will the NDS cause my basement to flood or create drainage problems around my house?

Natural drainage systems are designed to carry stormwater straight into the ground, not toward yards or basements. SPU uses soil testing information to locate these projects only where the conditions are good for infiltrating stormwater straight down into the ground. If needed, the site may be designed with an underground liner for extra protection.

How will this project affect street parking?

This project is likely to affect street parking. Seattle Public Utilities knows that parking and access from the street to homes and properties are very important to residents. We will carefully consider and address the impacts to parking in every potential project location. We also assess the condition and availability of off-street parking nearby.

Will this project attract mosquitoes?

No, it will not attract mosquitoes. Mosquitoes need stagnant water (found in bird baths, old tires, dog water bowls, etc.). Natural drainage systems are designed to constantly drain and keep water moving.

Will my children and pets be safe when the water is collected and stored here?

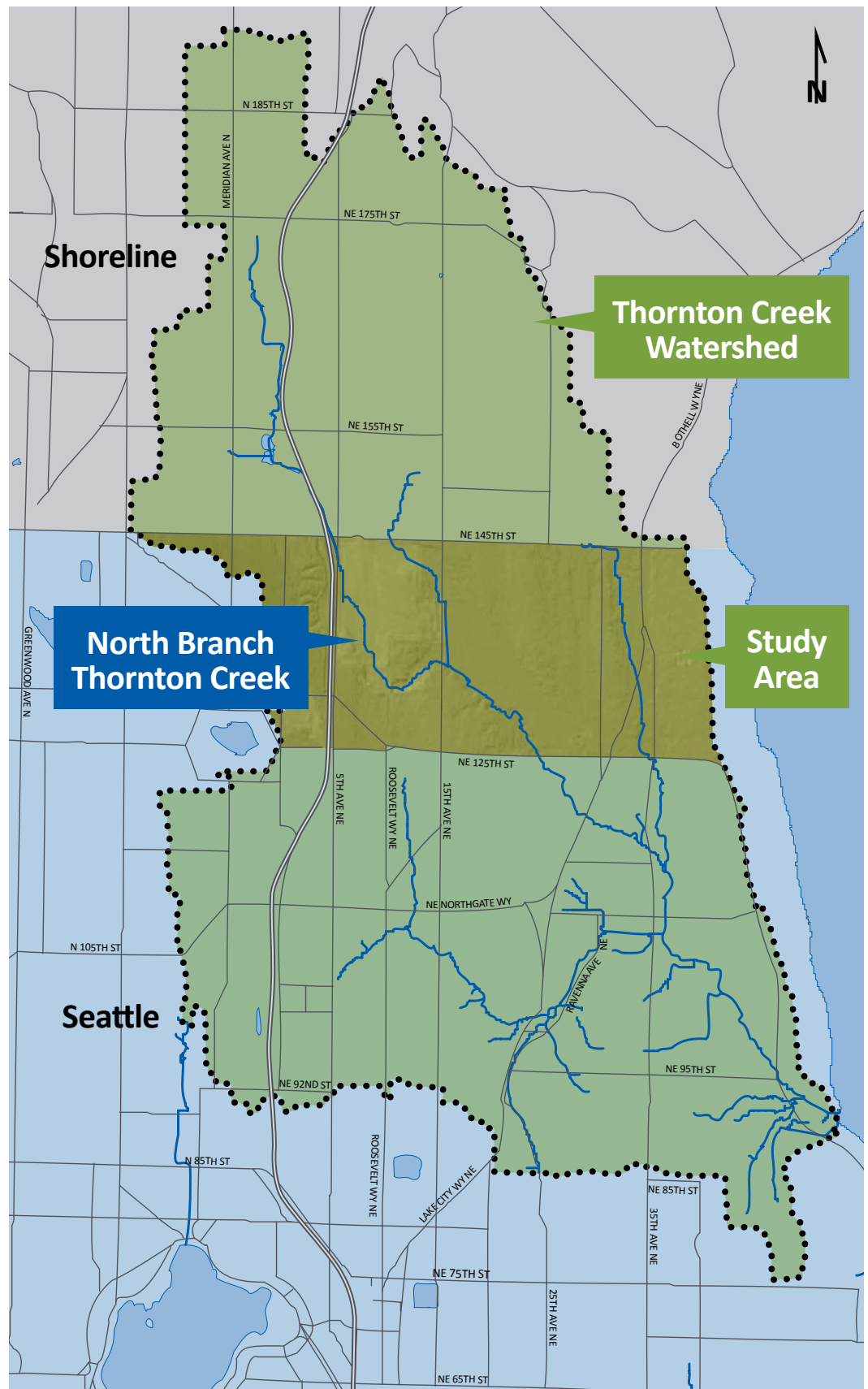
Natural drainage systems are designed with safety in mind. They will typically drain within 24 hours of the end of a storm and, in most cases, it will be even faster.

Who do I reach out to if maintenance is needed?

If the completed project near your home isn't draining properly or requires maintenance, please call: (206) 386-1800.

Project Map

SPU is currently working on NDS projects in several urban watersheds throughout Seattle. The study area for this project reflects the boundary of the north Thornton Creek watershed.



Questions? Contact Seattle Public Utilities

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Learn more and sign up for project updates at:

www.seattle.gov/utilities/neighborhood-projects/north-thornton-natural-drainage-systems



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